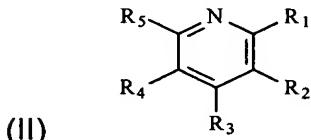


## What we claim is:

1. An olefinic interpolymers comprising:

- an olefinic interpolymers or a mixture of olefinic interpolymers each comprising at least one  $C_2 - C_{20}$   $\alpha$ -olefin monomer, optionally comprising at least one polyene;
- post-polymerization reactor residuals of at least one transition metal catalyst and a boron containing activator package; and
- at least one charge dissipation modifier selected from the group consisting of:

i) amine compounds of the general formula (I) and (II):



wherein x is 3 and each R is independently selected from linear, branched and cyclic hydrocarbyl groups and hydrogen or together two or more R substituents are a cyclic hydrocarbyl group and each  $R_{1-5}$  is independently selected from linear, branched and cyclic hydrocarbyl groups and hydrogen or together two or more of the  $R_{1-5}$  substituents are a cyclic hydrocarbyl group;

- silica compounds; and
- phosphoric acid;

and mixtures thereof,

wherein the olefinic interpolymers composition has a dissipation factor which is at least 50% lower than the dissipation factor of

the same olefinic interpolymer composition which has not been treated with a charge dissipation modifier.

2. The olefinic interpolymer composition of Claim 1 in which the charge dissipation modifier is selected from the group consisting of aniline, isopropylamine, pyridine, and N, N-octadecyl methyl amine.

5 3. The olefinic interpolymer composition of Claim 1 in which the charge dissipation modifier is N, N-octadecyl methyl amine.

4. The olefinic interpolymer composition of Claim 1 in which the charge dissipation modifier is a silica compound.

10 5. The olefinic interpolymer composition of Claim 1 in which the charge dissipation modifier is phosphoric acid.

6. The olefinic interpolymer composition of Claim 1 in which at least one  $\alpha$ -olefin monomer is selected from the group consisting of ethylene, propylene, 1-butene, 1-hexene, 1-octene, and 4-methyl-1-pentene.

15 7. The olefinic interpolymer composition of Claim 1 in which at least one olefinic interpolymer comprises two  $\alpha$ -olefin monomers.

20 8. The olefinic interpolymer composition of Claim 7 in which the  $\alpha$ -olefin monomers are ethylene and octene.

9. The olefinic interpolymer composition of Claim 7 in which the  $\alpha$ -olefin monomers are ethylene and butene.

10. The olefinic interpolymer composition of Claim 6 comprising a mixture of olefinic interpolymers each comprising two or three  $\alpha$ -olefin monomers selected from ethylene, propylene, butene and octene.

25 11. The olefinic interpolymer composition of Claim 1 in which at least one olefinic interpolymer comprises at least one polyene.

12. The olefinic interpolymer composition of Claim 11 in which each polyene is selected from 5-ethylidene-2-norbornene and 5-vinyl-2-norbornene.

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13. The olefinic interpolymer composition of any of Claims 1-11 wherein the composition has a dissipation factor of about 0.10 or less.

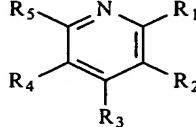
14. A process for lowering the dissipation factor of an olefinic interpolymer composition comprising:

5 a. contacting an interpolymer composition-solvent solution comprising an olefinic interpolymer or mixture of olefinic interpolymers, post-polymerization reactor residuals of at least one transition metal catalyst and a boron containing activator package all dissolved in a solvent with a charge dissipation modifier selected from the group consisting of:

10 i) amine compounds of the general formula (I) and (II):

15 (I)  $NR_x$

(II)

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25 wherein x is 3 and each R is independently selected from linear, branched and cyclic hydrocarbyl groups and hydrogen or together two or more R substituents are a cyclic hydrocarbyl group and each R<sub>1-5</sub> is independently selected from linear, branched and cyclic hydrocarbyl groups and hydrogen or together two or more of the R<sub>1-5</sub> substituents are a cyclic hydrocarbyl group;

30 ii) silica compounds; and

iii) phosphoric acid;

and mixtures thereof, and

b. isolating the treated interpolymer composition.

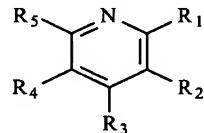
30 15. A process for lowering the dissipation factor of a solid olefinic interpolymer composition comprising an olefinic interpolymer or

mixture of olefinic interpolymers, post-polymerization reactor residuals of at least one transition metal catalyst and a boron containing activator package, the process comprising:

- 5 a. heating the olefinic interpolymer composition into a melt state;
- b. contacting the olefinic interpolymer composition with a charge dissipation modifier selected from:
  - i) amine compounds of the general formula (I) and (II):

10 (I)  $NR_x$

(II)



15 wherein x is 3 and each R is independently selected from linear, branched and cyclic hydrocarbyl groups and hydrogen or together two or more R substituents are a cyclic hydrocarbyl group and each R<sub>1-5</sub> is independently selected from linear, branched and cyclic hydrocarbyl groups and hydrogen or together two or more of the R<sub>1-5</sub> substituents are a cyclic hydrocarbyl group;

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- ii) silica compounds; and
- 25 iii) phosphoric acid;
- and mixtures thereof;

c. allowing the deactivation agent to physically interact with the catalyst and activator residuals sufficiently to modify the dissipation factor; and

30 d. recovering the treated interpolymer composition.

16. An olefinic interpolymer composition prepared by the process of Claim 14 or Claim 15.

17. A cable comprising an electrical conductor and an electrically insulative olefinic interpolmer composition of any one of Claims 1-12.